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Governor's Blue Ribbon Water Task Force

Meeting Notes August 25-26, 2004 Albuquerque, NM

Attendees: Brian Burnett, John D'Antonio, Estevan Lopez, Bill Hume, Anne Watkins, Conci Bokum, Frank Chaves, Wayne Cunningham, Peter Davies, Steve Hernandez, David Hughes, Howard Hutchinson, Sarah Kotchian, Elmer Lincoln, Manuel Trujillo, Cyle Sharp, Bob Vocke and Jack Westman attended the meeting. Tanya Trujillo (ISC General Counsel) and Grace Haggerty, Page Pegram, Rolf Schmidt-Petersen, Nabil Shafike, Kevin Flanigan, and Greg Lewis (NM Rio Grande Bureau) attended as guests. Charlie Nylander represented the Los Alamos National Laboratory Water Research Technical Assistance Office.

The next meeting of the BRWTF will be September 22-23, 2004 in Farmington, NM.

Rolf led the ISC Rio Grande Bureau presentation. (The presentation will be posted on the BRWTF web site when available.)

Compact requirements and average conditions include:

- CO 600,000 afy, NM 1,200,000 afy, & TX 400,000 afy;
- NM cannot exceed 1929 conditions (200,000 afy) above Otowi;
- RG Project supply 900,000 afy (57% NM [500,000 afy]);
- Does not include SJC water;
- Silent on individual rights;
- Cannot store upstream in post 1929 reservoirs when RG Project storage drops below 400,000 af;
- The RG is fully appropriated increased use by one sector will require decreased use by another sector.
- RG flow is highly variable (max. 2,750,000 afy & min. less than 500,000 afy); and
- Drying of the RG above Elephant Butte has been fairly common.

Overview of the Rio Grande Bureau of the ISC (Rolf Schmidt-Peterson)

Bureau Staffing, Responsibilities, and Annual Budget Basin-Wide Activities (Rolf)

- Overview of ISC and its relationship to the OSE
- ISC primary responsibilities
 - o Compact compliance
 - o Federal issues (goal of maintaining primacy of administration of state water resources0

Examples:

Compact Compliance

- Rio Grande Compact accounting and oversight
 - o The Compact and RG hydrologic reality
 - o Support the Engineer Adviser and the NM RG Compact Commission
 - o First line of communication with Texas and Colorado on RG water issues
- Litigation technical support on Compact issues
- Mainstem RG and Rio Chama river and reservoir operations oversight
- San Juan Chama Project oversight
- Basic hydrologic data collection (stream gauging, snowpack measurement, precipitation, etc.)

Federal Issues

- Litigation technical support on Federal issues (primarily RG silvery minnow and Southwestern willow flycatcher)
- ESA compliance

- The Conservation Water Agreement and Emergency Drought Water Agreement
- Planning, Development and Management of Water Resources
 - Upper RG Water Operations Review and EIS
 - MRG ESA Collaborative Program and EIS
 - Technical review of RG basin regional water plans and basin water-related NEPA projects
 - Baseline studies and modeling

Upper Rio Grande (Kevin Flanigan)

The RG Bureau's plans and priorities for the Upper RG (above Otowi) are to maintain Compact compliance by:

- Maintaining oversight of federal reservoir operations
- Maintaining oversight of administration of SJC Project water on the Lower Rio Chama
- Implementing Rio Chama active water resources management

Middle Rio Grande

The RG Bureau's plans and priorities on the Middle RG are to maintain Compact compliance, manage federal issues, and assist with the planning, development, and management of the region's water resources. Compact compliance is being addressed by (Kevin Flanigan):

- Excavating and maintaining the Elephant Butte Reservoir Pilot Channel (pilot channel reduces ET)
- Maintaining oversight of the River Maintenance Cooperative Agreement with the Bureau of Reclamation
- Maintaining oversight of the Vegetative Management Cooperative Agreement with the Bureau of Reclamation
- Evaluating and controlling (limiting) excessive natural depletions
- Implementing efficient water management practices within the MRG
- Water metering and measurement implementation
 - o Water control structures
 - o Management methods (rotation, DSS, etc.)
 - New river gauges

Management of Federal issues (primarily the ESA) will be accomplished by (Grace Haggerty):

- MRD ESA Collaborative Program (see handout)
- ISC Middle Rio Grande ESA Projects (see handout)

Water planning, development, and management efforts include (Nabil Shafike):

- The URGWOPS EIS
- URGWOM
- San Acacia Reach SW/GW interaction study and model
- Seepage run studies
- Evapotranspiration and evaporation studies

Lower Rio Grande (Greg Lewis)

The RG Bureau's plans and priorities for the Lower RG are to:

- Aid the OSE in implementing active water resources management
- Aid EBID in improving water management practices within the EBID
 - o Metering and measurement implementation
 - Water control structures
- Technical lead for threatened interstate litigation by the State of Texas and negotiations
- Assist in development of Lower RG Administration Model
- Address Southwester willow flycatcher issues within Elephant Butte delta

Priorities for FY2006 (Rolf)

- Maintain existing staff and increase staffing
 - o Currently, 3 permanent staff and 10 term at this time

- Hydrographer (water measurement), project manager (ESA projects), administrative support
- Complete construction and maintain the Elephant Butte Delta Pilot Channel
- Maintain ESA compliance
 - o Construct, maintain, and operate, as appropriate, silvery minnow projects
 - O Develop the next water management agreement for MRG ESA compliance
 - Oversee SWWF consultation
- Support for additional funding on Lower RG issues for negotiations, litigation, and to address day-to-day issues
- Complete URGWOPS review and EIS
- Control/limit natural depletions within the MRG at current levels
- Increase efficiency of water operations (reservoir releases; MRGCD and EBID operations)
- Implementation of AWRMS on Rio Chama and LRG
- Increasing technical foundation of MRG ESA and LRG issues

Charlie Nylander presented an overview of the Los Alamos National Laboratory Water Research Technical Assistance Office (Handouts will be posted on BRWTF web site when available.) and made the following points:

- Initial focus of the Center is the Espanola Basin, but communicating and collaborating a scientific understanding of water resources is a need state-wide;
- Planning for water resources includes by quantity and quality issues;
- The Office (located in a Santa Fe County office location in Santa Fe) is offering technical assistance and identifying collaboration opportunities between federal and state agencies, municipal and county governments, pueblos, universities, and the public; and
- The Office will be preparing educational materials e.g., the video currently being prepared on the sustainable groundwater supply (The BRWTF previewed a segment of the video.).

Peter Davies covered the Department of Energy National Laboratory Water Technology Research and Development Act.

Purpose:

To create a new program in the Department of Energy that uses the expertise and facilities developed in the national laboratory network to develop next generation technology and augment water supplies for all water use sectors including energy.

Authorization:

The bill authorizes \$225 million per year of which \$200 million is for the research and development program, \$5 million is for administration and \$20 million is for facilities development. Of the \$200 million research budget:

- 40% (\$80 million) is directed to **8 Regional Centers** (5% per center) each consisting of a national laboratory and university partnerships with separate research themes that cover the full range of water supply augmentation issues.
- At least 15% (\$30 million) is directed to facilitate **Technology Transfer**, commercialization, demonstration and to build public / private partnerships that moves new technology to full application.
- At least 30% (\$60 million) is directed to a **Competitive Grants** program to generate new ideas, develop partnerships with other Federal Agencies and non-governmental research investments, and to add flexibility to address new and emerging issues. These grant funds shall be distributed:
 - 15-25% (\$9-15 million) distributed as block grants to NGO's that requires a 50% cost match by the NGO and the funds can be redistributed to individual research initiatives.
 - 20-30% (\$12-18 million) research grants to national laboratories
 - 15-25% (\$9-15 million) distributed to match other Federal Agency research grants, requires a recommendation by other Federal Agencies and a 50% cost share from the other Federal Agencies research funds.
 - Remainder: good ideas can be proposed from nearly any source.

- Remainder: Distribute to Technology Transfer / Competitive Grants / Future Regional Centers / Advisory Panel Costs, etc.

Organization:

The program consists of four major elements:

- 1. <u>Eight (8) Regional Centers</u> (see map) each centers has a geographic and thematic basis consisting of a National Laboratory and one or more University Partnerships, but the requirement to work collaboratively with other centers, NGO's and other Federal research programs.
- 2. National Water Supply Law and Policy Institute administered by University of New Mexico Law School Utton Center but with collaborative partnerships nation wide with the responsibility to identify hurdles to new technology innovation and acceptance for water supply augmentation, and propose alternatives to overcome these hurdles.
- 3. <u>Program Coordinator / Lead Laboratory</u> Sandia National Laboratories is responsible for coordinating the efforts of the regional centers, the Policy Institute with other public and private efforts, coordinating all parties in development of technical roadmaps, facilitating technology transfer and reporting on the program.
- 4. <u>National Water Supply Technology Advisory Panel</u> appointed by the Secretary advises the program, evaluates the performance of the other three elements and helps to build the public-private partnerships.

Water Technology Themes:

The initial theme designations are consistent with regional needs and current laboratory program responsibilities within the Department of Energy. It is envisioned that as the program implementation plans are developed, these theme areas will be adjusted to more closely reflect existing laboratory expertise as well. Initial themes include:

Region	Lab	Water for Energy Theme	Energy for Water Theme	Water Theme
Northeast	Brookhaven National Lab	Reduced water quality impact of powerplant outfall		Decentralized (soft-path) water treatment.
Central Atlantic	National Energy Technology Lab	Produced water purification and use for power production		Water reuse for large cities
Southeast	Oak Ridge National Lab	Shallow aquifer conjunctive water use	Energy reduction for sea water desalination	Membrane technology development
Midwest	Argonne National Lab	Water efficiency in manufacturing industry	Energy reduction in wastewater treatment	
Central	Idaho National Energy and Environmental Lab	Cogeneration of nuclear power and water	Energy systems for pumping irrigation	Watershed Management
West	Pacific Northwest National Lab		Conjunctive management of hydropower and water	Mining water reuse including separation processes
Southwest	Los Alamos National Lab	Water for power production in arid environments	Energy reduction and waste disposal for brackish desalination	High water and energy efficiency arid agriculture & transboundary water management
Pacific	Lawrence Livermore National Lab	Point of use technology, water treatment and conveyance energy reduction	Co-located Energy Production and Water Treatment	Water reuse for agriculture
Coordinator	Sandia National Lab		Sensor and Monitoring Systems for Water	

John briefed the Task Force and made the following points:

- Budget guidance for the upcoming legislative session is for flat budgets (gaining organizations will require loosing organizations);
- A flat budget would require maintaining the vacancy rate (12-15);
- The OSE budget is approximately \$42M (\$15 General Fund, \$11.5 Trust Funds, & the balance special or 1-time appropriations);
- At the current rate of spending, the Trust Funds will be depleted by 2007;

- An increase of approximately \$14M has been presented as an option for dealing with the funding issue:
- Conversion of term employees to permanent would require \$4+ M;
- Infusion of Trust Funds with some \$30M this year and with another \$10M later from oil and gas revenues is a possibility;
- Trust Funds can only be used for contract work not FTEs;
- Increased fees are being considered e.g., \$500 domestic well permit fee and water rights transfer fees:
- Full federal funding of Indian water rights settlements is a concern the feds are expecting states to pay more;
- Health, education, water, and economic development will compete for limited state resources;
- Public/private partnerships are being considered;
- Regional water and wastewater systems are being pursued (includes reasonable user rate structures):
- \$30M is need for the Pecos settlement (minimum purchases required);
- Governor's Finance Council is evaluating funding approaches for water infrastructure financing (Infrastructure Finance Team);
- Elephant Butte will be at approximately 2% of capacity by end of irrigating season;
- Compact storage restrictions will continue;
- Domestic wells continue to be debated wells are also going dry; and
- Mutual domestics may need a soft landing initially (e.g., domestic well water initially [60gpd] with expansion tied to water rights).

The following observations were made during Task Force discussions:

- The water crisis word must get out (what is it, how will it be managed, & what resources are needed);
- There must be increase public awareness of the drought;
- Drought drives increased costs with less water and farmers are going out of business;
- The water crisis message must come through in the BRWTF annual report to the Governor;
- The water situation must be tied to economic expansion;
- BRWTF members could advise the Infrastructure Finance Team one needs to understand the relationship between the \$10B needed for infrastructure and the \$45M/yr needed for water administration:
- The Task Force must craft a focused message before the next legislative session there is a lot of misinformation out there, which can result in bad policy;
- The Governor's agenda will not be successful unless NM deals with its water crisis;
- NM does not have a comprehensive state-wide approach for water as it invests some \$40-50M/yr factors to be considered include
 - o Regional systems
 - o Conservation
 - o Watershed management
 - Funding process
 - o Leveraging funds
 - Federal funding
 - Private sector funding
 - o Charging the true cost of water
 - o Future needs
 - o Public/private
 - Other water sources (e.g., saline and wastewater reuse)